

# Focus

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## Composting With Worms

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### What do you do with your food scraps?

- Throwing food scraps in the garbage quickly fills the garbage can.
- Mixing food scraps with an open compost pile of yard waste may cause odors and attract pests.

Instead, turn your food scraps into nutrient-rich compost by letting *worms* do the work!

Vermicomposting, or composting with worms, can be done in the basement, garage or in a protected area outside your home. All you need is a worm bin, bedding material, a sheet of plastic, food scraps and, of course, worms! Within 3 to 6 months, you can have rich compost for your garden or outdoor potted plants.

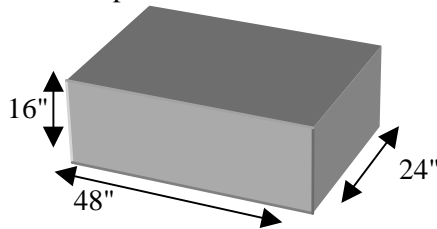
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### First, the Bin

You can purchase a worm bin ready-made or make your own from an old cupboard, packing crate, or plywood and 2x4's.

- The box should be shallow, 12"-16" deep; red worms are surface eaters and need oxygen to breathe.
- Drill a few small holes in the bottom and sides for drainage and ventilation.
- Attach a secure lid to provide a dark environment for the worms. (The lid also keeps varmints out and worms in.)

The size of bin depends on the amount of food waste generated. Generally, a household of 4 produces between 7 to 10 pounds of food wastes a week and requires a worm bin with dimensions of 24"x48"x16".



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### Next, the Bedding

- Corrugated cardboard, newspaper, shredded office paper, straw or leaves can be used for bedding. Tear the cardboard or newspaper into strips 1 to 3 inches wide.
- Soak the bedding in water for a few minutes and squeeze out excess water.
- Fill the bin loosely with the bedding mixture. Do not pack down. It should be fluffy so air can circulate.

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### Last, the Worms

Worms are the most important part of your vermicomposting operation. Red worms, also known as red wigglers, manure worms, or striped worms, are used for this process because they thrive on organic wastes. (The earthworm, in contrast, needs mineral soils to survive.) Red worms typically have red and grey stripes and can be found in yard waste compost piles or manure.

About a pound of worms are enough to start your worm bin. You can get worms from a friend with an operating worm bin or search through compost piles. Bait shops sell red worms, or they can be purchased through catalogues or gardening clubs. For help locating worms, call 1-800-RECYCLE or your county solid waste department.

## Let the Composting Begin!

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- Once your bin is filled with a mixture of bedding, place the worms on top. They will burrow down below the surface.
- Now you're ready to feed them your food scraps. Put food scraps in the bin and cover lightly with bedding so food does not show.
- Place a sheet of plastic on top to help retain moisture.

## Food Waste Dos and Don'ts

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### Do feed them:

vegetable scraps  
fruit rinds and peels  
breads, cereals  
coffee grounds w/filters  
tea leaves, bags  
egg shells

### Don't feed them:

meats, bones  
fish  
dairy products  
vegetable oil  
pet wastes

**Meats, fish and oily foods should be avoided.** They emit odors when rotting. Flies and rats can also be attracted to worm bins containing meats.

## Worm Bin Maintenance

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In about 3-4 months, the compost will be mostly dark and crumbly. Pile the contents of your bin onto one side and put fresh bedding and food scraps onto the other side. The worms will slowly find their way to the fresh supply, leaving behind rich humus. When the first pile is completely composted (it could take another 4 to 6 weeks), remove it and replace with fresh bedding.

Once established, your worm bin will become home to other creatures besides worms. Sowbugs, beetles, millipedes, molds and many other bugs and microscopic organisms create an ecosystem of their own and, along with the worms, break down food wastes.

## How to Use Your Compost

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- Mix into the soil in garden or flower beds any time of the year.
- When planting your garden, add compost to the bottom of your seed row.
- Add compost to the bottom of holes when transplanting plants.

## Harvest Time

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- Fully operational worm bins produce a steady supply of worms. These can be harvested and used for fishing bait and as a starter supply for other worm bins.
- To harvest the worms, shovel a small pile of compost onto some plastic in the sun. Let stand for a few minutes and scrape away the top portion. The worms should be hiding in a clump at the bottom of the pile.

## Trouble-Shooting Tips

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- Fruit flies multiply around your worm bins, especially in summer. Add a layer of fresh bedding and make sure a sheet of plastic has been placed on top to reduce their numbers.
- Odors in the worm bin indicate too much food waste and not enough bedding. Add a layer of fresh bedding and make sure you have adequate drainage. You may need to add a few more drainage holes.

## The Benefits of Worm Composting Include:

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- Creating great nutrients for your soil.
- Reducing the amount of garbage in your garbage can and in the landfill.

A great resource for information on worm composting is *Worms Eat My Garbage*, by Mary Appelhof, published by Flower Press, Kalamazoo, Michigan, 1982. It is available through your local libraries and bookstores.

For more information on composting, call 1-800-RECYCLE or your county solid waste office.

*Ecology is an equal-opportunity agency. If you have special accommodation needs, contact Michelle Payne at (360) 407-6129 (Voice) or (360) 407-6006 (TDD).*